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Effect of Feeding Stilbestrol to Dairy Cows^{1/}

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Stilbestrol was fed daily at the rate of 10 mg. per day for a sixty day period to 6 cows during their first lactation. Three cows were fed a ration of alfalfa hay and corn silage and 3 were fed grass-legume silage. All cows were fed a 15% protein concentrate according to milk production.

Figures 1 and 2 illustrate the milk production and fat percent of these cows for periods 60 days prior to and following the 60 day stilbestrol feeding period. Additional data on percent decrease in milk production, feed consumption and body weight changes are shown in Table 1.

Table 1

Period	Percent decrease in milk production	Dry Matter consumed (average lbs/day/cow)	Body weight change (average lbs per cow)
3 cows fed grass legume silage			
60 days pre-feeding	3.1	24.6	30
60 days feeding	37.2	20.9	42
30 days post-feeding	36.2	18.8	45
3 cows fed alfalfa hay and corn silage			
60 days pre-feeding	6.7	26.4	37
60 days feeding	11.1	26.3	43
60 days post-feeding	14.0	25.1	52

It is evident from these data that feeding stilbestrol at the rate of 10 mg. per day did not increase milk production or fat percent of the milk. There is no evidence that this treatment affected the persistency of lactation.

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The marked decrease in milk production of the cows on the grass-legume silage ration during the stilbestrol feeding and post feeding periods appeared to be largely due to a marked decrease in feed consumption toward the end of the stilbestrol feeding period. The silage being fed at this time was from the bottom of a silo and when a new lot of silage was fed feed consumption increased. These three cows were also in the terminal part of lactation at this time.

During the course of this experiment the digestibility of the alfalfa hay-corn silage ration was determined during the control period and during the period in which stilbestrol was fed. These data are shown in Table 2.

Table 2

Period	Digestion coefficients (Average - 3 cows)					
	Dry Matter	Ash	Protein	NFE	Fiber	Fat
Pre-feeding period	65.5	38.7	65.3	75.6	44.7	59.4
Stilbestrol feeding period	67.2	40.5	60.6	77.3	55.8	58.2

It will be noted that digestibility of dry matter, NFE and fiber was increased when stilbestrol was fed. Protein digestibility was decreased. These differences were not statistically significant except for fiber digestibility (significant at the 5% level). Our feed analyses also indicated that the fiber content of the ration was higher and the protein and NFE content was less during the stilbestrol feeding period than during the control period.

In spite of some slight indication that stilbestrol may have altered digestibility of the ration, this effect was not reflected in changes in milk production, feed consumption or body weight gain (Figures 1 and 2, Table 1) that could be ascribed to stilbestrol feeding.

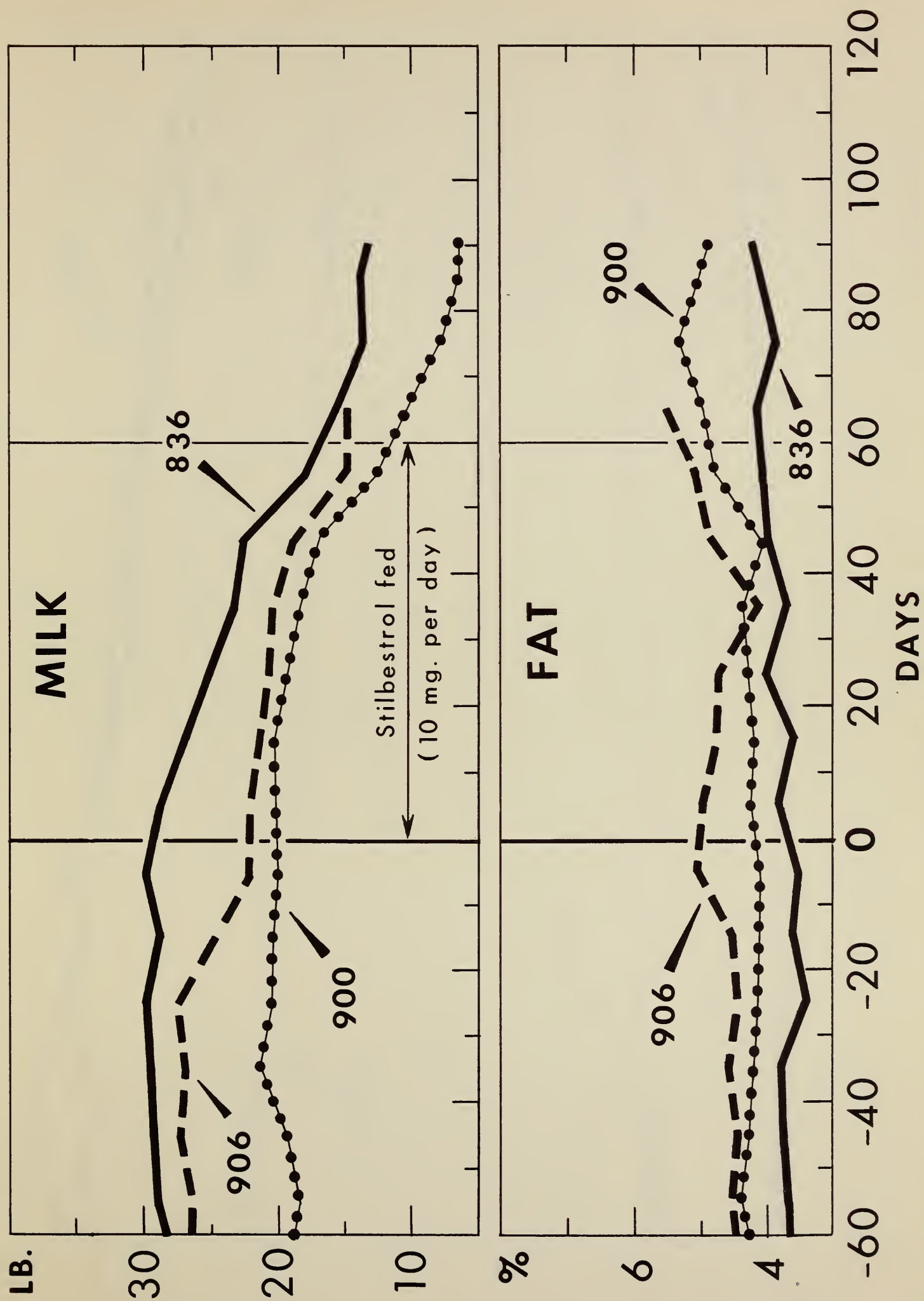


Fig. 1 - Milk Production of Cows on Grass - Legume Silage Ration.

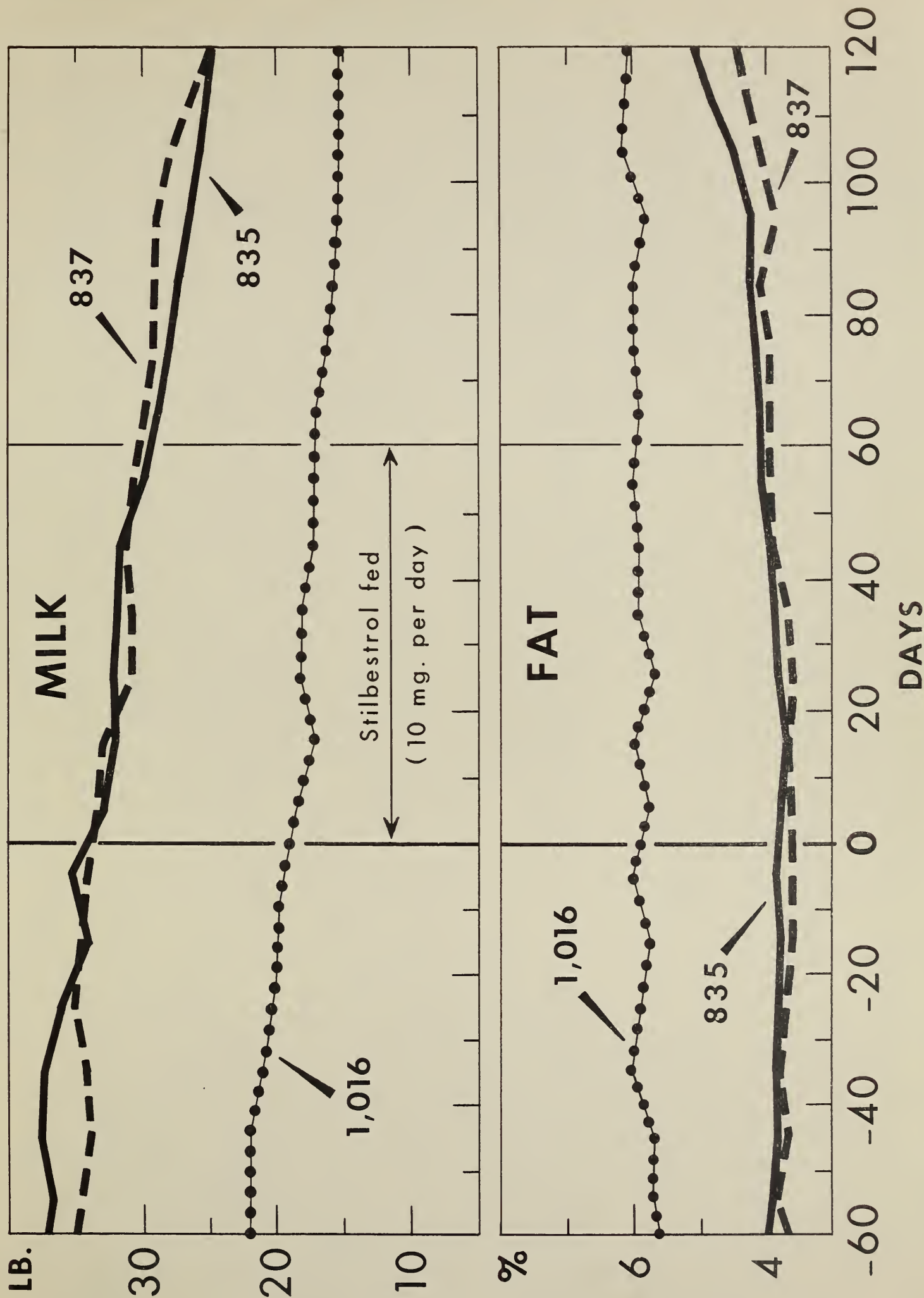


Fig. 2 - Milk Production of Cows on Alfalfa Hay and Corn Silage Ration.

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